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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,489	08/22/2003	Nalin Mistry	NRT.0180US (15794ROUS02U)	8712
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/645,489	<b>Applicant(s)</b> MISTRY ET AL.	
	<b>Examiner</b> Man Phan	<b>Art Unit</b> 2419	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 7-21 is/are rejected.
- 7) ☒ Claim(s) 9, 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

***DETAILED ACTION***

1. This communication is in response to applicant's communication in the application of Mistry et al. for the "*Multi staged services policing*" filed 08/22/2003. This application claims priority from provisional application 60/440,625 filed 01/17/2003. Claims 1-2, 4-5, 7-21 are pending in the application.

2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks <sup>TM</sup>, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "analyzing traffic units" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

4. Claims 1, 9, 13, 15, 19 are objected to because of the following informalities: The claim language in these claims are not clearly understood. The claims contain the phrase “*adapted to*” which is not a requirement that it is performed, therefore it renders the body of the claim moot. It has been held that the recitation that an element is “*adapted to*” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112, 1<sup>st</sup> paragraph***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-12, 14, 16-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 10, 14, 16-17 the limitation “*first policy*”, “*second policy*” have no support in the original specification.

Regarding claims 11-12, the limitation “*analyzing, by the upstream services policer, said second traffic unit differently from the analyzing of the first traffic unit*” has no support in the original specification.

Regarding claim 18 the limitation “*third policy*” has no support in the original specification.

***Claim Rejections - 35 USC § 112, 2nd paragraph***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites “*said traffic unit*” on line 1. There is no antecedent basis for this limitation in the claims. It is not clear whether this refers to the same “*first traffic unit*” or “*second traffic unit*”.

Claim 16 recites “*the first traffic unit*” on line 2. There is no antecedent basis for this limitation in the claims.

Claim 17 recites “*the traffic unit*” on line 3. It is not clear whether this refers to the same “first traffic unit” or “second traffic unit”.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 12 is rejected under 35 U.S.C. 101 as not falling within one of the four categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C.101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transforms underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “clarification of ‘process’ under 35 U.S.C101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim 12 constitutes a machine within the meaning of § 101, however, it does not appear that applicant is seeking to patent an arrangement of mechanical elements which form a machine with intended functionality, instead and based on further analysis, it appears that applicant is seeking to patent the functionality of the service policer claimed in combination with the controller and memory of the machine. Claim 12 is direct to “a computer readable medium”

which is not supported by either a specific asserted utility or a well established utility. Claim 12 merely defines “*a computer readable storage medium*” or “*data record for storing instructions*” capable of communicating with the controller and the memory, and is not directed to statutory subject matter. The claims appear to be nothing more than a signal not tangibly embodied in a manner so as to be executable and thus non-statutory for failing to be in one of the categories of invention. It’s not tangibly embodies and non-functional descriptive material - data per se.

Therefore, what applicant is attempting to claim as a computer program product or data record as is known in the art. The claim is actually drawn to non-functional descriptive material stored on a machine readable medium. The description given in the specification does not cure this problem. In practical terms, claims define non-statutory processes if they simply manipulate abstract ideas, e.g., a bid or a bubble hierarchy, without some claimed practical application, *Schrader*, 22 F.3d at 293-94, 30 USPQ2d at 1458-59; *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759. Furthermore, the claimed computer readable medium limitation is not explicitly tied to the recited steps. Also, the claimed computer readable medium reads on non statutory embodiments of computer readable media drawn to waves or signals. As signals are not a tangible medium, the instant claims 20-25 do not recite a tangible result in a form that is useful to the user of the process.

Claim 12 is also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-2, 10-11, 13-15, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galloway et al. (US#7,155,502) in view of Ganti et al. (US#7,266,606).

In so far, as understood with regarding claims 1-2 and 13-14, the references disclose a novel system and method for policing data traffic communications networks, according to the essential features of the claims. Galloway et al. (US#7,155,502) discloses a packet policing system comprising: receiving a traffic unit (col. 6, lines 31-35; col. 11, lines 19-21); analyzing an application associated with said traffic unit (identification of traffic type (e.g., application, service, protocol) (col. 7, lines 56-59; col. 8, lines 14-40; col. 11, lines 25-35); processing based on the analyzing (enforcing policies based on traffic type) (col. 9, line 60-col. 10, line 14);



However, Galloway does not disclose expressly feedback received from the downstream service policer by the upstream service policer. In the same field of endeavor, Ganti et al. (US#7,266,606) teaches in Fig. 4 a block diagram illustrated the traffic flow diagram utilizing the feedback information. As seen in Fig. 4, Class C1 traffic 24 enters a first policer 50 which marks traffic as either conforming or non-conforming according to rate R1. The non-conforming traffic may be dropped right there, or may be left in the packet stream for the network to decide what to do with it at a later time. The traffic thus marked 52, and class C2 traffic 26 enters a second policer 54 which polices the combination of class C2 traffic 26 and conforming class C1 traffic at  $R1+R2$  (utilizing the feedback information R1 from the downstream service policer to cause the upstream service policer to modify analysis  $R1+R2$  of further traffic units received)(See also Fig. 3; Col. 4, lines 11 plus and Col. 4, lines 60 plus).

Regarding claims 4-8, the reliance on a commonly known standard such as the use of Layer 2 technologies like Frame relay and ATM cell in the manner claimed would have been obvious to the artisan as a matter of the design choice. The most common approach to handling these problems has been to use an Asynchronous Transfer Mode (ATM) virtual circuit (VC) for each subscriber and to set a limit on the VC. This is known as traffic provisioning on a per subscriber line basis. This is often accomplished using layer 2 technologies like Frame relay and ATM as admitted by the Applicant as prior art (See specification, page 2). There are a number of standards used in digital telecommunications, including TCP/IP, Ethernet, HDLC, ISDN, ATM, X.25, Frame Relay, Digital Data Service, FDDI (Fiber Distributed Data Interface), T1, xDSL, Wireless, Cable Modems, and Satellite among others. Many of these standards employ different packet and/or frame formats. The term "frame" is often used in reference to encapsulated data at

OSI layer 2, including a destination address, control bits for flow control, the data or payload, and CRC (cyclic redundancy check) data for error checking. The term "packet" is often used in reference to encapsulated data at OSI layer 3. Furthermore, Referring to the Figure in Bonaventure (US#6,618,356), a data traffic policer POL is shown. The data traffic policer POL is preferred to be included in an ATM communication network on a data communication link L. The data communication link data transports packets i.e. ATM cells. The receiver REC receives the incoming data packets being transported over the common communication link L. Upon reception of a data packet, the receiver REC provides the information of the header part of this data packet i.e. ATM header to the first determiner DET1 and to the second determiner DET2 (Col. 6, lines 23 plus).

Regarding claims 10-11, they are method claims corresponding to the apparatus claims as discussed in paragraph above. Therefore, claims 10-11 are analyzed and rejected as previously discussed with respect to claims above.

In so far, as understood with regarding claims 15, 19, Galloway and Ganti teach the invention substantially as claimed in claims 1 and 13 above. Ganti further teach wherein the upstream services policer is adapted to use the feedback from the downstream services policer to cause the upstream services policer to modify analysis of further traffic units received by the upstream services policer (Figs. 3-4; . 3; Col. 4, lines 11 plus and Col. 4, lines 60 plus).

In so far, as understood with regarding claims 20, 21, Galloway and Ganti teach the invention substantially as claimed in claims 13-14 above. Ganti further teach wherein the downstream services policer affords a higher priority to traffic units received from the second

upstream services policer than to traffic units received from the fast upstream services policer (Fig. 3; Col. 4, lines 11 plus).

One skilled in the art of communications would recognize the need for a novel system and method for services policing in data communications networks, and would apply Ganti's novel use of feedback information in cascaded policing system into Galloway's system and method for policing the flows of data stream of packets for bandwidth management. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Ganti's cascaded policing systems and methods into Galloway's methods apparatuses and systems facilitating distribution of updated traffic identification functionality to bandwidth management devices with the motivation being to provide a system and method for a multi staged services policing.

*Allowable Subject Matter*

10. Claims 9, 16-18 are objected to as being dependent upon the rejected base claims, but would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1<sup>st</sup> and 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest where the upstream services policer is a first upstream services policer and the multi-staged services policer further comprises a second upstream services policer adapted to transmit traffic units received at the

second upstream services policer to the downstream services policer based on an analysis specific to the second upstream services policer and wherein the downstream services policer affords a higher priority to traffic units received from the second upstream services policer than to traffic units received from the first upstream services policer, as specifically recited in the claims.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Liu et al. (US#2008/0025218) is cited to show the method apparatus edge router and system for providing QoS guarantee.

The Rawlins et al. (US#7,069,337) is cited to show the policy based synchronization of per class resources between routers in a data network.

The Cheesman et al. (US#6,680,933) is cited to show the telecommunications switches and methods for their operation.

The Trinh et al. (US#2008/0219160) is cited to show the programmable hardware based traffic policing.

The Wilters et al. (US#6,072,989) show the method to determine a scheduled rate value to be used in a policing algorithm and related policing device.

The Hoars et al. (US#7,123,583) show the dual use rate policer and remarking logic.

The Veres et al. (US#6,614,790) show the architecture for integrated services packet switched networks.

The Seo (US#7,065,084) show the data structure for implementation of traffic engineering function in multiprotocol label switching system and storage medium for storing.

The Zavalkovsky et al. (US#6,822,940) show the method and apparatus for adapting enforcement of network quality of service policies based on feedback about the network conditions.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

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the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

02/25/2009

/Man Phan/

Primary Examiner, Art Unit 2419